

# PHYS 170 : General Physics I

**Credits:** 4

**Class Hours:** 4 lecture

**Prerequisites:** "C" or higher or concurrent enrollment in MATH 241.

**Corequisite Courses:**

PHYS 170L

**Recommended:** Previous Physics or Calculus experience suggested but not required. Previous Algebra experience strongly recommended.

**Description:** This course is the first half of a two-semester introduction to the fundamentals of physics and will cover kinematics, dynamics, energy, collisions and momentum, rotation, waves and sounds, as well as select topics on material properties and thermodynamics. Lectures and problem-solving will regularly use the mathematical tools of algebra, geometry, trigonometry, vectors, and calculus.

**Semester Offered:** Fall

**Designation:**

Diversification: Physical Sciences – DP

**Course Student Learning Outcomes (CSLOs):**

1. Analyze and interpret graphical information related to force, energy, and motion.
2. Explain how deviations from simplified/mathematical models occur when compared to real world situations. Identify the factors which cause the model's inaccuracy or failure.
3. Solve given problems involving kinematics, dynamics, energy, collisions and momentum, rotation, waves and sound, as well as selected topics on material properties and thermodynamics using algebra, trigonometry, and calculus.